

## ABSTRACT

In a communication system wherein packetized data is transmitted to remote stations in a channel sensitive manner, a preamble must be transmitted with each discrete data transmission to the remote station. Method and apparatus are presented herein for generating an optimized preamble structure for use with transmissions of packetized data. An optimized preamble structure is one that is easily detectable and decodable, yet occupies a small fractional overhead of the entire transmission to the remote station. Information that needs to be carried by a preamble are used to create a basic structural unit, which is then redundantly permuted.